

TS-00-415

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph on page 3 with the following paragraph:

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During test mode, however, the TEST signal 19 is activated.

In this mode, the BIST circuit 10 has access to the embedded memory 14. The BIST circuit ~~14~~ 10 can run a self-test function and provide a pass/fail indication and "test done" indication back to the system through the STATUS signal 20.

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Please replace the paragraph starting on page 15 and ending on page 16 with the following paragraph:

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The Embedded Faults Database 80 comprises a set of faults and a means of introducing these faults 96 into the Embedded Memory Behavioral Model 84. Each record in the Embedded Faults Database 80 comprises a finite state machine state, a memory address, and a memory data value. The data values for specific locations in the embedded memory can be "stuck at" zero or one to thereby simulate a faulted condition. Alternatively, memory locations can be left unfaulted to simulate normal performance. Further, particular FSM commands can be associated with "stuck at" conditions so that the memory faults display "real world" phenomenon. Faulted memory locations are introduced, or

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inserted 96, into the Embedded Memory Behavioral Model 84 from the Embedded Faults Database 80 prior to simulation. The use of a separate Embedded Faults Database 80 allows the Embedded *a2* Memory Behavioral Model 84 to be altered by the introduction of faults by simple changes in the database file. Changes in the behavioral model 84 are not required.

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Please replace the paragraph starting on page 17 and ending on page 18 with the following paragraph:

*a3* Referring now to Fig. 6, examples of BIST algorithms encoded into the BIST controller are shown. The BIST finite state machine (FSM) logic is structured to decode particular encoded commands and to then perform particular functions. Two algorithms 124 are shown. The MARCH C+ algorithm performs a series of WRITE and READ sequences at memory locations. The CHECKERBOARD algorithm performs a stepping sequence. Each step of a particular algorithm is programmed using a FSM command 128. Each command 128 is further machine encoded 120 132 into a binary string. For example, the '0001' encoded command referenced in Fig. 5, translates to the FSM command 'R0W1R1(UP)' in the MARCH C+ algorithm.

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